

Inventions & Innovation Emerging Technology

Lower-pH Copper Flotation Reagent System

In the mining industry, flotation is a process that concentrates minerals from their ores prior to metal recovery. Current practice uses slurry pHs in excess of 10, achieved by adding burnt lime (CaO). However, lime production is an energy-intensive process that releases large quantities of carbon dioxide into the atmosphere. A new reagent system recovers copper minerals at much lower pHs than conventional reagents while not floating pyrite. The process reduces or even eliminates both the lime used in copper flotation and the accompanying carbon dioxide. The result is immediate cost and energy savings along with improved recovery of copper and other minerals.



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